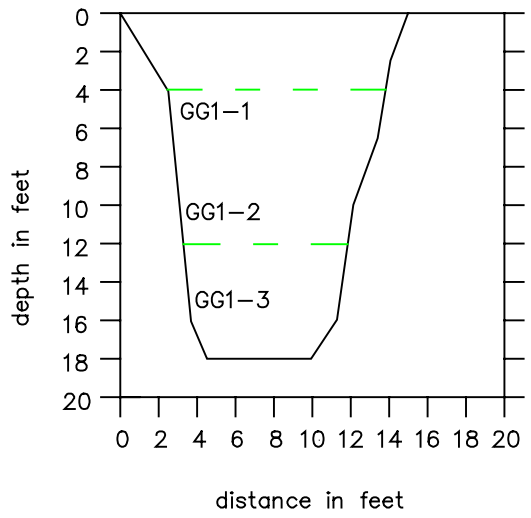
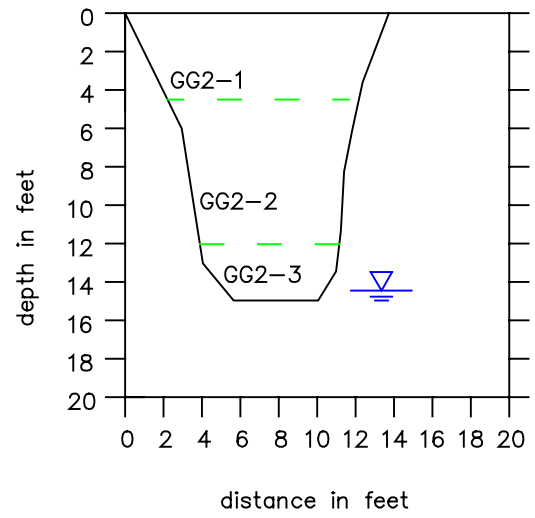
Attachment A. Test Pit Logs

GG1



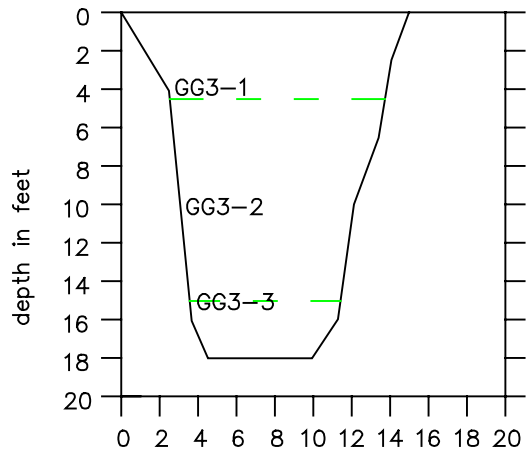
GG1–1	ML	SILT, clayey, slightly moist, Munsell color 10YR3/3, dark brown.
GG1–2	CL	CLAY, silty, moist, slightly plastic, some mottling, Munsell color 10YR4/4, dark yellowish brown.
GG1–3	CL	CLAY, minor silt, Munsell color 10YR4/4, dark yellowish brown.

GG2



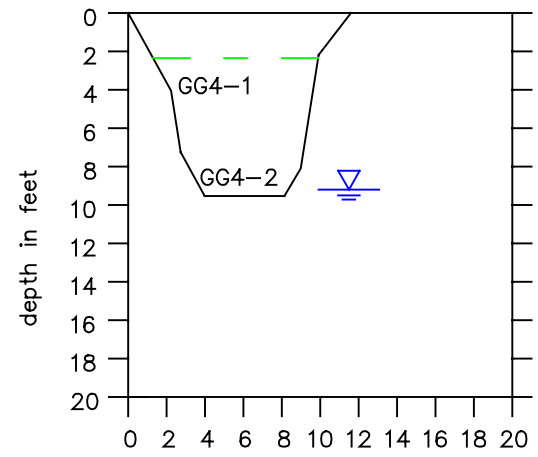
GG2–1	ML	SILT, clayey, slightly moist, Munsell color 10YR4/2, dark grayish brown.
GG2–2	CL	CLAY, silty, moist, slightly plastic, Munsell color 10YR4/4, dark yellowish brown.
GG2–3	CL	CLAY, silty, moist, slightly plastic, Munsell color 10YR4/4, dark yellowish brown.

GG3



GG3–1	ML	SILT, clayey, slightly moist, crumbly, Munsell color 10YR3/3, dark brown.
GG3–2	ML	SILT, clayey, Munsell color 10YR4/4, dark yellowish brown.
GG3–3	CL	CLAY, silty, moist, slightly plastic, Munsell color 10YR4/4, dark yellowish brown.

GG4



GG4–1	CL	CLAY, silty, moist, Munsell color 10YR4/2, dark grayish brown.
GG4–2	CL	CLAY, silty, very moist to wet Munsell color 10YR3/4, dark yellowish brown.

LEGEND

CL	Soil symbols used are from the "Unified Soil Classification System"
GG1–1	Soil and/or bedrock sample number. Sample number is located at depth taken in cross section.
— —	Contact between different materials within same geologic unit.
▽	Water table.

NOTES: Trench locations shown on Figure 6

All trenches were dug using a Mitsubishi hydraulic excavator.

STATE OF CALIFORNIA
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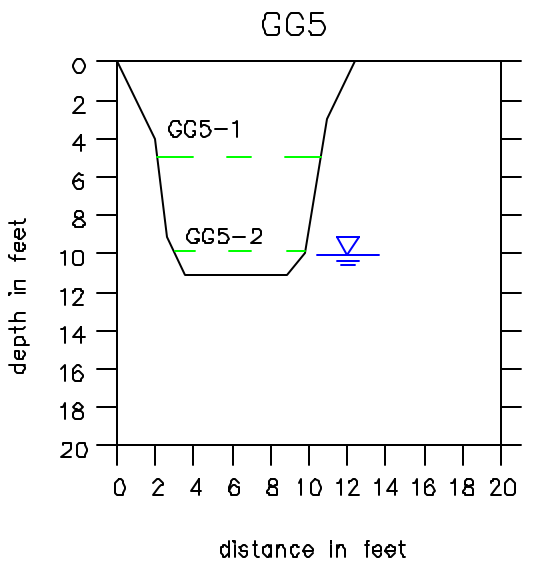
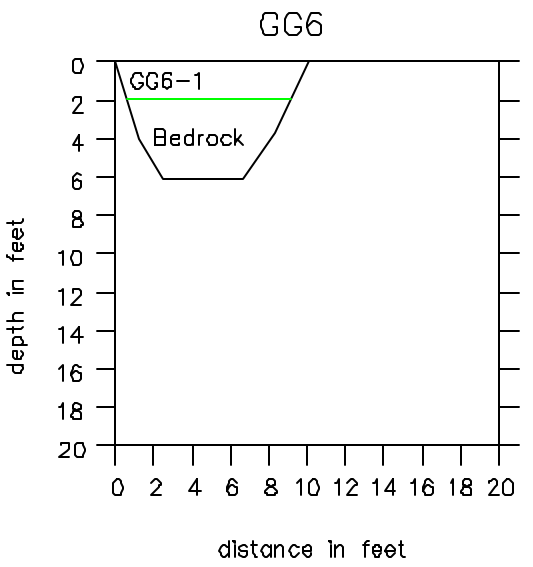
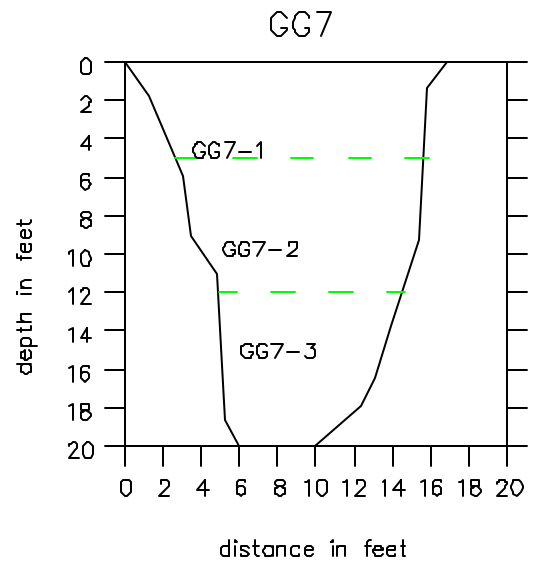
TEST PIT LOGS

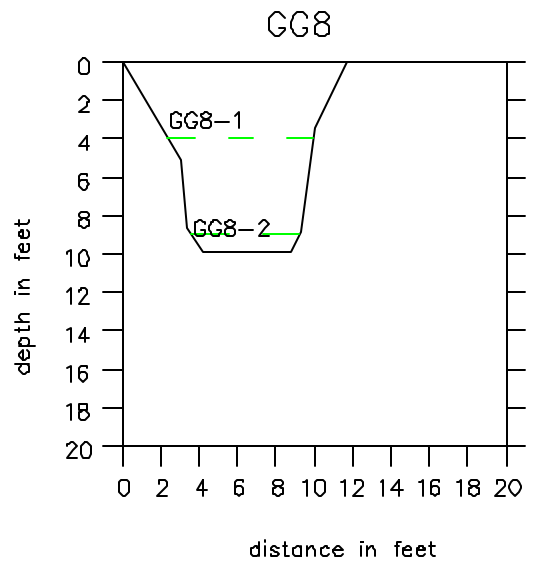




GG5-1	CL	CLAY, silty, slightly moist, stiff, Munsell color 10YR3/3, very dark brown.
GG5-2	CL	CLAY, silty, moist, slightly plastic, some mottling. Munsell color 10YR4/4, dark yellowish brown.

GG6-1	CL	CLAY, silty, slightly moist, tough, Munsell color 10YR3/2, very dark grayish brown.





GG7-1	ML	SILT, clayey, slightly moist, crumbly, Munsell color 10YR3/2, very dark grayish brown.
GG7-2	ML	SILT, clayey, Munsell color 10YR4/4, dark yellowish brown.
GG7-3	CL	CLAY, silty, moist, slightly plastic, Munsell color 10YR4/4, dark yellowish brown.

GG8-1	CL	CLAY, silty, gravel clasts – fine to medium, Munsell color 10YR4/2, dark grayish brown.
GG8-2		Weathered bedrock – mudstone, crumbly.

LEGEND

CL	Soil symbols used are from the "unified Soil Classification system"
GG5-1	Soil and/or bedrock sample number. Sample number is located at depth taken in cross section.
— —	Contact between different materials within same geologic unit.
———	Contact between different geologic units.
▽	Water table.

NOTES: Trench locations shown on Figure 6

All trenches were dug using a Mitsubishi hydraulic excavator.

STATE OF CALIFORNIA
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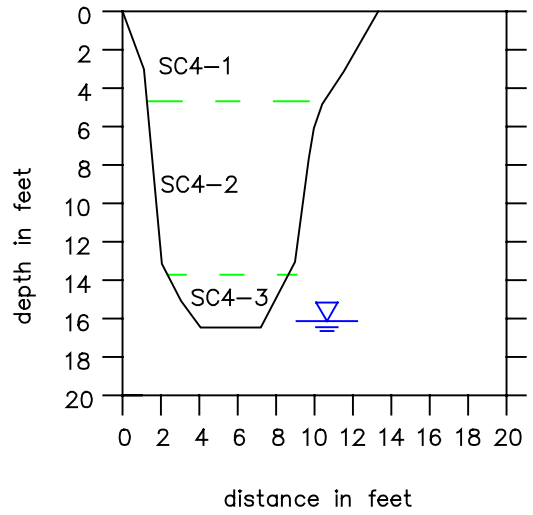
THE SITES AND COLUSA PROJECTS
CONSTRUCTION MATERIALS

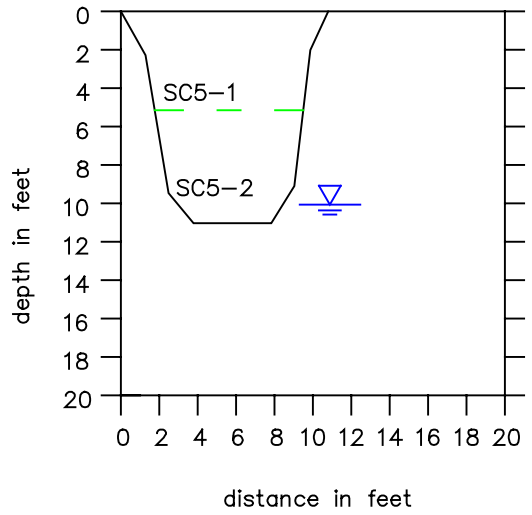
TEST PIT LOGS

SC4



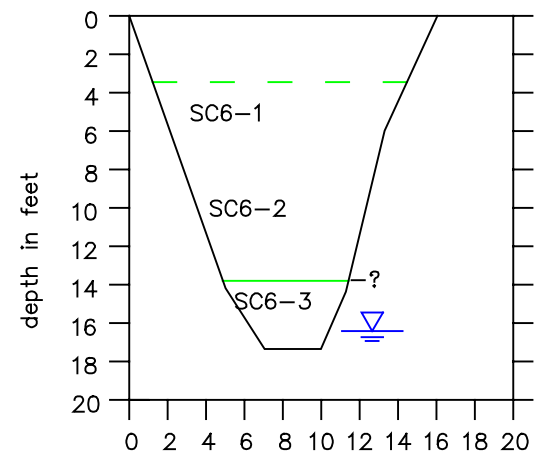
SC4–1	ML	SILT, clayey, slightly moist, Munsell color 10YR3/3, very dark brown.
SC4–2	CL	CLAY, silty, Munsell color 10YR3/6, dark yellowish brown.
SC4–3	CL	CLAY, minor silt, slightly plastic, moist, Munsell color 10YR3/2, very dark grayish brown.

SC5



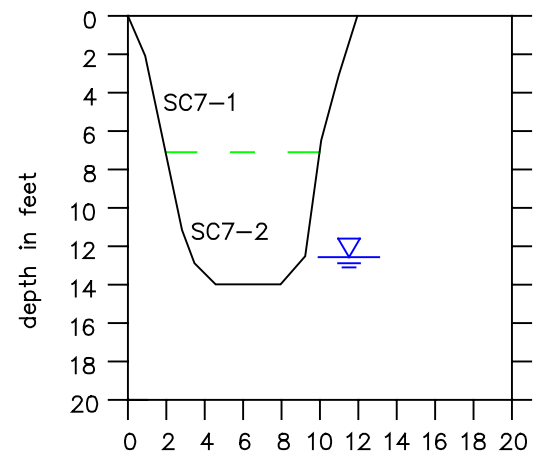
SC5–1	CL	CLAY, minor silt, Munsell color 10YR3/1, very dark gray.
SC5–2	CL	CLAY, very minor silt, medium plastic, wet below ten feet, Munsell color 10YR3/3, dark brown.

SC6



SC6–1	CL	CLAY, minor silt and gravel, Munsell color 10YR3/2, very dark grayish brown.
SC6–2	CL	CLAY, minor gravel, Munsell color 10YR4/4, dark yellowish brown.
SC6–3	CL	CLAY, clayey gravel with minor sand, gravels are subrounded black chert and red sandstone, Munsell color 7.5YR5/4, brown.

SC7



SC7–1	CL	CLAY, silty, few sand grains, Munsell color 10YR4/2, dark grayish brown.
SC7–2	CL	CLAY, minor silt, scattered fine gravel clasts, gastropod shell, Munsell color 10YR6/6, bownish yellow.

LEGEND

CL	Soil symbols used are from the "Unified Soil Classification System"
SC4–1	Soil and/or bedrock sample number. Sample number is located at depth taken in cross section.
— —	Contact between different materials within same geologic unit.
———	Contact between different geologic units.
▽	Water table.

NOTES: Trench locations shown on Figure 5

All trenches were dug using a Mitsubishi hydraulic excavator.

STATE OF CALIFORNIA
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THE SITES AND COLUSA PROJECTS
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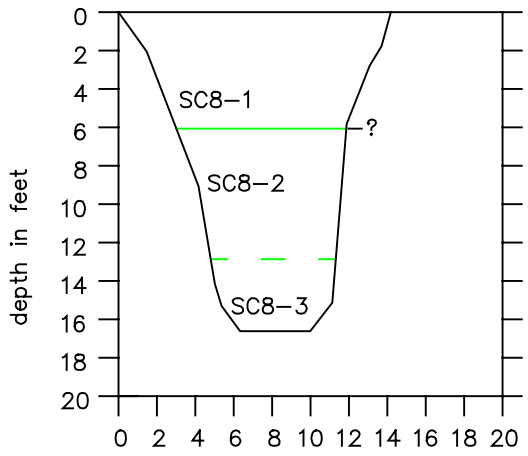
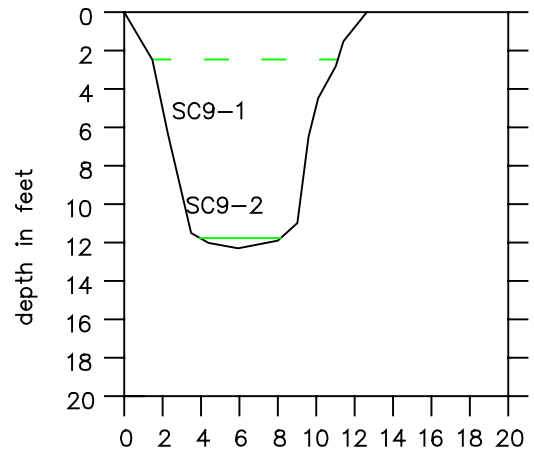
SC8



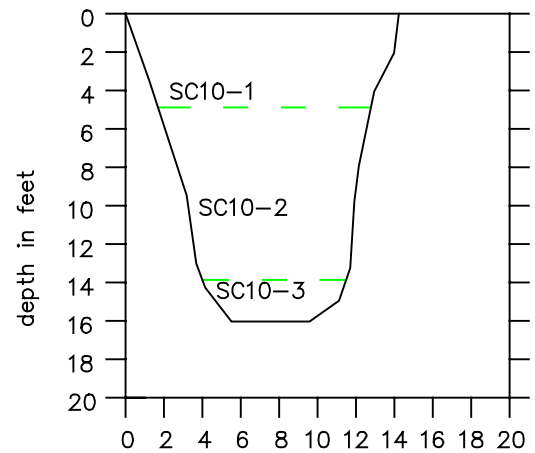
SC8–1	ML	SILT, clayey, minor gravel, gravel lens in side wall, Munsell color 10YR3/3, very dark brown.
SC8–2	SM	CLAY, silty, with sand and gravel –angular, Munsell color 7.5YR5/4, brown.
SC8–3	CL	CLAY, gravelly, rounded clasts up to cobble in size, Munsell color 10YR5/8 to 7.5YR5/8, yellowish brown to strong brown.

SC9



SC9–1	CL	CLAY, minor silt, slightly moist. calcareous streaking, Munsell color 2.5YR4/3, reddish brown.
SC9–2	CL	CLAY, moist, plastic some black mottling, Munsell color 2.5YR4/2, weak red.
		Possible bedrock at 12 feet?

SC10



SC10–1	CL	SILT, clayey, Munsell color 10YR3/4, dark yellowish brown.
SC10–2	CL	CLAY, silty, Munsell color 10YR4/6, dark yellowish brown.
SC10–3	GC	GRAVEL, clayey, Munsell color 10YR4/4, dark yellowish brown.

LEGEND

CL	Soil symbols used are from the "Unified Soil Classification System"
SC9–1	Soil and/or bedrock sample number. Sample number is located at depth taken in cross section.
— —	Contact between different materials within same geologic unit.
———	Contact between different geologic units.
▽	Water table.

NOTES: Trench locations shown on Figure 5

All trenches were dug using a Mitsubishi hydraulic excavator.

STATE OF CALIFORNIA
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NORTHERN DISTRICT

THE SITES AND COLUSA PROJECTS
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TEST PIT LOGS

Attachment B. Laboratory Results

STATE OF CALIFORNIA
THE RESOURCES AGENCY
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CLASSIFICATION TEST SUMMARY

DIVISION OF ENGINEERING
CIVIL ENGINEERING
CANALS AND LEVEES SECTION

PROJECT: Sites and Golden Gate Dams

FEATURE: Proposed Geologic Exploration for Borrow Material

LAB NO	HOLE NO	F.S. NO	PERCENT FINER: MECHANICAL ANALYSIS: GRAVEL 6"	3"	1½"	¼"	#6	#4	SAND #8	#16	#30	#50	#100	#200	HYDROMETER: SILT & CLAY 5M	2M	1M	ATTERBERG LIMITS L.L.	P.I.	SPEC. GRAV. -#4	ORG %	CLASSIFICATION: GROUP SYMBOL	GROUP NAME
97-157	SC-1	1										100	98	93				45	27	2.78	4.7	CL	Lean clay
97-158	"	2				100	99	99	97	96	95	91	81	70				38	23	2.79	3.6	CL	Sandy lean clay
97-159	SC-2	1								100	99	97	80	61				34	17	--	3.7	CL	Sandy lean clay
97-160	"	2						100	96	93	92	91	90	87				48	31	--	4.4	CL	Lean clay
97-161	SC-3	1						100	99	97	94	92	90	86				51	35	--	4.9	CH	Fat clay
97-162	"	2						100	94	89	86	83	81	79				53	34	--	5.0	CH	Fat clay with sand
97-163	LC-1	1							100	99	98	91	75	61				33	17	2.77	3.7	CL	Sandy lean clay
97-164	"	2							100	99	99	98	96	92				44	25	2.83	3.8	CL	Lean clay
97-165	LC-2	1									100	99	95	88				44	29	--	4.4	CL	Lean clay
97-166	"	2							100	99	97	92	84	75				34	17	--	3.1	CL	Lean clay with sand
97-167	GG-1	1									100	99	93	74				32	16	2.78	4	CL	Lean clay with sand
97-168	"	2						100	98	96	94	92	88	81				44	29	2.80	5.1	CL	Lean clay with sand
97-169	"	3							100	99	99	97	94	85				41	25	--	5	CL	Lean clay with sand
97-170	GG-2	1						100	99	99	98	96	87	67				30	13	--	3.8	CL	Sandy lean clay
97-171	"	2						100	98	97	96	94	86	68				36	18	--	4	CL	Sandy lean clay
97-172	"	3				100	99	99	99	98	97	95	91	86				59	43	--	7.2	CH	Fat clay
97-173	"	4						100	99	96	93	88	84	76				45	30	--	6.1	CL	Lean clay with sand

DATE: 6/3/98
INITIAL: RGJ
REQUEST NO.: 98-18

REMARKS:

Sheet 1 of 1

IM - INSUFFICIENT MATERIAL
NP - NON-PLASTIC
NG - NO GOOD

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES

SANDSTONE TEST SUMMARY

DIVISION OF ENGINEERING
CIVIL ENGINEERING
CANALS AND LEVEES SECTION

PROJECT: Sites and Golden Gate Dams

FEATURE Sandstone Quality for Rip-Rap and RCC Aggregate

LAB. NO.	HOLE NO.	F.S. NO.	PERCENT FINER — MECHANICAL ANALYSIS — GRAVEL 3"	GRAVEL 1½"	GRAVEL ¾"	GRAVEL ⅜"	GRAVEL 4	SAND 8	SAND 16	SAND 30	SAND 50	SAND 100	SAND 200	3-inch CUBE SAMPLES compressive strength (psi)	specific gravity (ssd)	percent absorption %	CLASSIFICATION GROUP SYMBOL	GROUP NAME
98-174	SSQ-1	A												11130	2.50	2.6		
"	"	B												9960	2.48	2.6		
"	"	C												10830	2.48	2.8		
98-175	SSQ-2	A												11840	2.50	2.5		
"	"	B												11690	2.50	2.5		
"	"	C												12370	2.49	2.6		
98-176	SSQ-3	A												*	*	*		
"	"	B												*	*	*		
"	"	C												*	*	*		
98-177	SSQ-4	A												11830	2.50	2.4		
"	"	B												11630	2.50	2.5		
"	"	C												**	**	**		
98-178	SSQ-5	A												10160	2.46	3		
"	"	B												10200	2.45	2.8		
"	"	C												10820	2.45	2.8		
98-179	SSQ-6	A												9940	2.45	2.8		
"	"	B												9910	2.45	2.9		
"	"	C												10990	2.45	2.9		
98-180	SSQ-7	A												11220	2.52	2.5		
"	"	B												10320	2.51	2.3		
"	"	C												10740	2.50	2.7		
98-181	SSQ-8	A												12690	2.48	2.3		
"	"	B												12130	2.49	2.5		
"	"	C												12060	2.49	2.4		

DATE 5/25/1998
INITIAL RGJ
REQUEST NO 98-18

REMARKS: * Unable to obtain cube sample. One side of slab is fractured and uneven.
** can only secure two cube specimens from slab.

IM - INSUFFICIENT MATERIAL
NP - NON-PLASTIC
NG - NO GOOD

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES

SANDSTONE TEST SUMMARY

DIVISION OF ENGINEERING
CIVIL ENGINEERING
CANALS AND LEVEES SECTION

PROJECT: Sites and Golden Gate Dams

FEATURE Sandstone Quality for Rip-Rap and RCC Aggregate

LAB. NO.	HOLE NO.	F.S. NO.	PERCENT FINER — MECHANICAL ANALYSIS — GRAVEL 3"	GRAVEL 1½"	GRAVEL ¾"	GRAVEL ⅜"	GRAVEL 4	SAND 8	SAND 16	SAND 30	SAND 50	SAND 100	SAND 200	3-inch CUBE SAMPLES compressive strength (psi)	specific gravity (ssd)	percent absorption %	CLASSIFICATION GROUP SYMBOL	GROUP NAME
98-182	SSQ-9	A												11250	2.49	2.8		
"	"	B												11040	2.49	2.6		
"	"	C												11360	2.48	2.6		
98-183	SSQ-10	A												11240	2.45	2.8		
"	"	B												10970	2.46	2.7		
"	"	C												11490	2.46	2.7		

RESULTS OF QUALITY TESTS ON CRUSHED SANDSTONE

1. ASTM C-131 Los Angeles Rattler Test (Grading A = 1½ x 3/8 size fraction) :
   - 100 revolutions = 11.4 percent loss
   - 500 revolutions = 43.4 percent loss

   Specific Gravity and Absorption tests before performing LART
   - Spec. Grav. = 2.48
   - Absorption = 4.2 percent

2. ASTM C— Durability Index (3/4 x #4 size fration)
   - Durability Index, Dc = 42

   Specific Gravity and Absorption tests before performing Coarse Durability Index
   - Spec. Grav. = 2.50
   - Absorption = 4.1 percent

DATE 5/25/1998
INITIAL RGJ
REQUEST NO 98-18

REMARKS: In determining the absorption, the strength samples (cubes) were oven dried at 160 °F. The crushed samples were oven dried at 230 °F. All samples were soaked for 24 hours.

IM - INSUFFICIENT MATERIAL
NP - NON-PLASTIC
NG - NO GOOD

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES

CLASSIFICATION TEST SUMMARY

DIVISION OF ENGINEERING
CIVIL ENGINEERING
CANALS AND LEVEES SECTION

PROJECT: Sites Dam

FEATURE:

LAB NO.	HOLE NO.	F.S. NO.	DEPTH (feet)	PERCENT FINER: MECHANICAL ANALYSIS: GRAVEL 3.0"	1.5"	3/4"	3/8"	4	SAND 8	16	30	50	100	200	HYDROMETER: SILT & CLAY 5um	2um	1um	ATTERBERG LIMITS: LL	PI	MOISTURE CONTENT %	PERCENT ORGANIC	GROUP SYMBOL	CLASSIFICATION GROUP NAME
99-737	SC-4	1	5									100	97	86				35	20			CL	Lean clay
99-738		2	10					100	96	99	98	96	95	87				39	25			CL	Lean clay
99-739		3	15					100	96	99	98	97	96	94				52	37			CH	Fat clay
99-740	SC-5	1	5						100	99	98	97	96	91				46	31			CL	Lean clay
99-741		2	10					100	99	97	95	94	92	87				57	42			CH	Fat clay
99-742	SC-6	1	5			100	96	99	96	97	96	94	88	80				49	35			CL	Lean clay with sand
99-743		2	10					100	96	97	96	94	89	83				54	38			CH	Fat clay with sand
99-744		3	15			100	98	97	87	82	79	75	68	60				45	30			CL	Sandy lean clay
99-745	SC-7	1	5					100	99	95	94	92	90	86				51	36			CH	Fat clay
99-746		2	10			100	99	99	96	92	87	82	78	73				42	25			CL	Lean clay with sand
99-747	SC-8	1	5		100	99	99	98	96	94	91	87	81	74				43	29			CL	Lean clay with sand
99-748		2	10			100	99	99	96	93	90	85	72	60				42	26			CL	Sandy lean clay
99-749		3	15		100	98	94	91	78	72	68	61	47	36				35	20			CL	Clayey sand
99-750	SC-9	1	5							100	99	99	98	97				72	51			CH	Fat clay
99-751		2	10						100	99	98	98	97	97				68	48			CH	Fat clay
99-752	SC-10	1	5								100	99	95	85				44	24			CL	Lean clay with sand
99-753		2	10					100	98	99	99	99	95	85				41	25			CL	Lean clay with sand
99-754		3	15	103	86	86	80	77	76	67	65	60	53	44				36	21			CL	Clayey sand with gravel
99-755	GG-1	1	5						103	98	98	98	96	87				31	19			CL	Lean clay
99-756		2	10					100	98	96	97	97	86	90				45	28			CL	Lean clay
99-757		3	15					100	91	95	94	93	91	85				41	24			CL	Lean clay
99-758	GG-2	1	5								100	99	96	85				35	19			CL	Lean clay with sand
99-759		2	10							100	98	98	92	77				34	18			CL	Lean clay with sand
99-760		3	15							100	98	98	93	79				33	18			CL	Lean clay with sand
99-761	GG-3	1	5								100	99	95	79				38	18			CL	Lean clay with sand
99-762		2	10					100	94	90	87	81	73	62				32	15			CL	Sandy lean clay
99-763		3	15									100	97	84				38	18			CL	Lean clay with sand
99-764	GG-4	1	4					100	99	98	98	98	96	90				42	25			CL	Lean clay
99-765		2	8									100	99	91				37	22			CL	Lean clay
99-766	GG-5	1	5					100	96	96	95	94	92	89				58	42			CH	Fat clay
99-767		2	15			100	98	99	97	94	89	84	69	55				31	14			CL	Sandy lean clay
99-768	GG-6	1	3					100	99	96	97	97	94	90				52	37			CH	Fat clay
99-769	GG-7	1	5									100	98	88				35	18			CL	Lean clay
99-770		2	10					100	99	99	96	96	95	85				33	16			CL	Lean clay with sand
99-771		3	15					100	99	98	98	98	96	84				30	12			CL	Lean clay with sand
99-772	GG-8	1				100	99	98	96	95	94	93	90	84				54	36			CH	Fat clay with sand
99-773		2	6					100	99	92	91	90	88	87				44	24			CL	Lean clay

DATE: 3/17/99
INITIAL:
REQUEST NO: 99-35

REMARKS:

IM - INSUFFICIENT MATERIAL
NP - NON-PLASTIC
NG - NO GOOD

Filename: 9935.XLS

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STATE OF CALIFORNIA
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DEPARTMENT OF WATER RESOURCES

CLASSIFICATION TEST SUMMARY

DIVISION OF ENGINEERING
CIVIL ENGINEERING
CANALS AND LEVEES SECTION

PROJECT: Sites Dam **FEATURE:** Composite Samples

LAB NO.	HOLE NO.	F.S. NO.	DEPTH (feet)	PERCENT FINER: MECHANICAL ANALYSIS: GRAVEL 3.0"	1.5"	3/4"	3/8"	SAND #4	#8	#16	#30	#50	#100	#200	HYDROMETER: SILT & CLAY 0.05	0.01	0.001	ATTERBERG LIMITS: LL	PL	MOISTURE CONTENT %	ORGANICS	UNIFIED SYMBOL	CLASSIFICATION (GROUP NAME)
99-1419	GG - Samples							100	99	98	97	97	94	83	41	33	27	38	22	3.9		CL	Lean clay w/sand
99-1420	SC - Samples							100	97	96	95	93	89	81	48	38	33	45	30	4.2		CL	Lean clay w/sand

DATE: 9/28/99
INITIAL: dmt
REQUEST NO.: 99-51

REMARKS: 99-1419 Specific Gravity - 2.74; Max. Dry Density - 111.8pcf; Opt. Moist. - 17.4%
99-1420 Specific Gravity - 2.74; Max. Dry Density - 110.0pcf; Opt. Moist. - 17.0%

AI - INSUFFICIENT MATERIAL
NP - NON-PLASTIC
NG - NO GOOD

Attachment C. Terrace Descriptions

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Terrace Descriptions

Station Number	Depth	Description	USCS	Color Munsell
3-15-1	0-2	SILT, clayey, brown	ML	
	2-6	CLAY, silty lighter brown	CL	
	6-7	GRAVEL, clay matrix, clasts rounded chert	GC	
3-15-2	0-4	SILT, clayey	ML	
	4-10	GRAVEL, silty, clasts are subangular sst.	GM	
3-15-3	0-2	SILT, clayey, minor rounded, fine gravel clasts of red and black chert	ML	10YR3/4
	2-4	SILT with clay and sand to granule above silty gravel w/ rnd chert clasts 3-4in.	ML	10YR4/3
3-15-4		Boxer Fm at surface		
3-15-5	0-2	SILT, clayey with gravel clasts to 3 in	ML	10YR4/4
3-15-6	0-4	Thin terrace overlying Boxer		
3-15-7	0-2	CLAY, silty, no gravel	CL	10YR4/2
	9-11	CLAY, plastic	CL	10YR5/4
3-15-8	0-15	Clayey silt and silty clay, some gravel lenses to 4 ft., 2+ft clay at base		
3-17-1	0-4	SILT, clayey	ML	
	8-10	CLAY, plastic	CL	
3-17-2	0-3	SILT, clayey	ML	10YR4/2
	3-9	CLAY, silty	CL	10YR4/4
	9-12	CLAY, plastic	CL	10YR5/4
3-17-3	0-3	SILT, clayey	ML	
	12-15	CLAY, plastic	CL	
3-17-4	0-5	Terrace deposit above Boxer FM.		
3-17-5	0-12	Flat lying clay bed bottom 2ft of terrace		
3-17-6	0-5	SILT, clayey, with gravel, clasts large, subangular sst., no soil structure	ML	7.5YR4/2
3-17-7	0-1.5	CLAY, silty with angular mudstone fragments overlying Boxer Fm.	CL	7.5YR4/4
3-17-8	0-5	SILT, clayey	ML	10YR4/3
	5-10	CLAY. Silty	CL	10YR4/4
	10-20	??		
3-17-9	0-6	Six feet of terrace deposit overlying Boxer Fm.		

Note: Station Number is keyed to the flight line and photo number

Terrace Descriptions (Cont.)

Station Number	Depth	Description	USCS	Color Munsell
3-17-10	0-4	SILT, clayey	ML	
	4-9	GRAVEL, clayey, silty, sandstone clasts	GC	
		Just upstream, reddish silty clay at base under gravel lens (buried soil)		7.5YR4/4
3-17-11	9-11.5	Buried soil under gravel lens, SILT, fine sandy clayey	ML	7.5YR4/6
3-17-12	0-5	Upper sloped surface, 5 ft. thick overlying Boxer Fm.		7.5YR4/3
		Low, flat terrace, blocky prismatic soil structure, no Boxer at base		10YR4/2
3-17-13	0-? Not exposed	Upper sloped surface, CLAY, silty with rounded clasts, fine to medium	CL	7.5YR4/4
3-19-1	0-2.5	Thin soil overlying Boxer Fm		
3-19-2	0-2.5	Thin soil overlying Boxer Fm, bedding planes juxtaposed		
3-19-3	0	Boxer exposed at surface		
3-19-4	0-6.5	SILT, clayey at surface grading to silty clay	ML	
3-19-5	0-8	CLAY, gravelly, silty, clasts rounded to 4 inches red and black chert	CL	7.5YR4/4
3-15-1	0-2	SILT, clayey, brown	ML	
	2-6	CLAY, silty lighter brown	CL	
	6-7	GRAVEL, clay matrix, clasts rounded chert	GC	
4-13-2	0-3	SILT, clayey, blocky-prismatic structure, crumbles easily	ML	10YR3/3
	3-9	Clay, silty to clayey silt,	CL	10YR4/3
	9-12	CLAY, silty with fine gravel clasts overlying Boxer Fm.	CL	10YR5/4
		Buried soil in opposite bank		7.5YR4/4
4-13-3		Cemented gravel bed overlying Boxer Fm.		
4-13-4	0-4	SILT, minor clay, few fine gravel clasts, inset lower terrace	ML	10YR4/3
	4-6	GRAVEL, clayey, silty matrix, clasts fine to medium	GC	
4-13-5	0-3	CLAY, silty over Boxer Fm.	CL	7.5YR4/4
4-13-6		Possible Tehama Fm. on hillside, clayey silt matrix with scattered clasts		10YR6/4
4-13-7	10-12	Possible buried soil between terrace deposit and Boxer Fm., CLAY with rounded gravel clasts	CL	7.5YR4/3
4-13-8	0-3	Thin soil overlying Boxer Fm,		
		Note: Station Number is keyed to the flight line and photo number		

Terrace Descriptions (Cont.)

Station Number	Depth	Description	USCS	Color Munsell
4-15-1	0-15	typical terrace deposit		
	15-25	GRAVEL, sandy loose, unconsolidated, rounded sst. Clasts, rusty staining minor clay	GC	5YR4/6
	25-30	CLAY, silty moist, soft moderately plastic	CL	5Y3/2
4-15-2		lower inset? Terrace with poor soil over buried soil, 7.5YR3/4 with orange mottles		
4-15-3	0-28	terrace deposit with very little structure		10YR3/3
	28-30	Grey clay		
4-15-4	0-1	colluvium overlying terrace deposit		
	1-6	CLAY, silty, hard, blocky, base not exposed	CL	10YR4/2
4-15-5		SILT, clayey, friable	ML	10YR4/4
		CLAY, silty, blocky with orange and grey mottling	CL	10YR5/2
4-17-1	7-10	Flat lying conglomerate bed overlying Boxer, hard, cemented, medium to coarse clasts, rounded sandstone and chert, sandstone matrix	GW	
4-17-2	0-1	SILT, clayey	ML	10YR 3/3
	1-5	CLAY, sandy, silty, with gravel. Buried soil	CL	7.5YR4/6
4-17-3	0-2	SILT, clayey, minor fine gravel	ML	10YR3/2
	2-4	CLAY, silty	CL	10YR4/3
	4-5	CLAY, minor silt	CL	10YR4/2
4-17-4	0-17	Terrace Deposit		
	17-20	CLAY, grey	CH	gley
4-17-5	0-7	Thin terrace over sandstone Boxer		
4-17-6		Terrace varies from 6 to 15 ft thick		
3-25-1	0-12	Channel gravels appear to be plated onto sidewalls		
3-25-2	0-3.5	SILT, clayey with minor fine gravel clasts	ML	10YR3/3
	3.5-7.5	CLAY, gravely, subrounded sst. clasts to 8 inches, overlying Boxer	CL	10YR5/6
3-25-3	0-3.5	SILT, clayey with minor fine gravel clasts	ML	10YR4/3
	3.5-8	CLAY, silty	CL	10YR4/4
	8-11.5	CLAY, minor silt, occaisional gravel clasts	CL	10YR4/3
3-25-4	0-5	SILT, clayey	ML	10YR4/3
	5-7.5	GRAVEL, clay matrix, fine to coarse, subrounded to rounded sst and chert	GC	10YR5/6
	7.5-10	Boxer		

Note: Station Number is keyed to the flight line and photo number

Terrace Descriptions (Cont.)

Station Number	Depth	Description	USCS	Color Munsell
3-27-1	0-2	SILT,very fine sand	ML	10YR5/6
	2-6	Silt with minor fine gravel, rounded chert clasts		
3-27-2	0-1	SILT, clayey		
	1-6	GRAVEL, clay matrix, fine to medium red and black chert, rounded	GC	7.5YR5/6
3-29-1	0-2	SILT, clayey	ML	10YR4/3
	2-7	SILT, clayey, limb at 3.5 ft	ML	10YR3/2
3-29-2	0-1.2	SILT, clayey, with some granule sized clasts	ML	10YR3/2
	1.2-4.7	SILT, with fine to medium gravel clasts, CaCO3, bone fragment	ML	10YR6/3
	4.7-6.5	GRAVEL, silt matrix, medium to coarse, sandstone clasts subangular	GM	10YR4/3
3-29-3	0-6	SILT, clayey	ML	10YR3/3
	6-8	GRAVEL, silty, clayey, two lenses	GM	
	8-11	CLAY, plastic	CL	10YR5/6
3-29-4	0-6	SILT, clayey with gravel lenses, sandstone bedrock at base	ML	
3-29-5	0-2	Clay, silty to clayey silt	CL	7.5YR3/2
	2-3	SILT, crumbly	ML	10YR3/3
	3-4.7	GRAVEL, silty, clasts fine to cobble, CaCO3 coatings	GM	
	4.7-6	CLAY, silty, stiff, Boxer sst and mst exposed in channel	CL	10YR5/6
3-29-6	0-2	CLAY, silty with rounded clasts of red and black chert and sst. Conc.	CL	7.5YR4/4
4-23-1	0-25	SILT, clayey with granule clasts of mudstone and sst, weathered	ML	7.5YR5/4
4-23-2	0-2.5	SILT, clayey	ML	10YR3/2
	2.5-6.5	CLAY, silty with minor clasts of sst. and claystone	CL	10YR4/3
4-23-3	0-4	SILT with minor clay, mudstone bedrock in channel on high fan	ML	7.5YR 5/4
4-23-4	0-3.5	SILT, clayey with granule clasts of weathered sst, Boxer exposed in channel	ML	7.5YR4/3
4-23-5	0-1.5	Colluvium over lying vertical bedded Boxer		
4-29-1	0-6	SILT, clayey with some gravel, increasing downward, shale and sst. Clasts	ML	10YR4/3
	6-9	GRAVEL, clayey sandy matrix, subrounded to rounded red and black chert	GC	10YR4/3
4-29-2	0-4	CLAY, silty,with gravel clasts, upper sloped surface overlying Boxer	CL	7.5YR4/3
4-29-3	0-4	CLAY, silty	CL	10YR3/2
	4-8	CLAY, silty	CL	10YR5/4
	8-9.5	CLAY, buried soil	CL	7.5YR5/3
4-29-4	0-3	Thin terrace overlying Boxer Fm.		

Note: Station Number is keyed to the flight line and photo number

Terrace Descriptions (Cont.)

Station Number	Depth	Description	USCS	Color Munsell
4-29-5	0-5	SILT, clayey	ML	10YR4/3
	5-8	GRAVEL, clayey sandy matrix, subrounded to rounded chert, sst clasts at base	GC	7.5YR4/6
		Up channel Boxer is near surface, down channel Boxer is replaced by clay		10YR5/4
4-29-6	0-12	Terrace 12 ft thick		
4-29-7		Upper sloped surface appears to plunge under the Low flat terrace and pinch out against the underlying Boxer Fm. USS is GRAVEL, clayey	GC	7.5YR4/6
		QLFT is SILT, clayey with blocky prismatic soil structure	ML	10YR3/3
4-29-8	0-2	Colluvium overlying Boxer, sandstone clasts to 1+ ft.		10YR4/6
4-29-9	0-2.5	CLAY, minor silt over weathered Boxer	CL	10YR4/3
4-29-10	0-2.5	CLAY with minor silt	CL	10YR3/3
	2.5-5	Weathered claystone		10YR5/4
4-29-11	0-6	SILT, clayey	ML	10YR3/4
	6-12	CLAY with minor silt	CL	10YR4/3
3-35-1	0-4	SILT, clayey, dark, blocky prismatic structure	ML	
	4-8	GRAVEL, sandy, clayey overlying Boxer Fm.	GC	
3-35-2	0-4	SILT, clayey, dark, blocky prismatic structure	ML	10YR3/3
	4-9	GRAVEL, clayey overlying west dipping Boxer	GC	5YR4/4
3-35-3	0-6	SILT, clayey	ML	10YR3/3
	6-10	CLAY, silty with gravel	CL	7.5YR4/4
3-35-4	0-4	CLAY, silty on surface of upper sloped surface, overlying Boxer Fm.	CL	7.5YR3/4
3-35-5		CLAY, silty with some gravel, upper sloped surface, cemented gravel breccia in channel	CL	7.5YR4/3
3-35-6	0-5	Typical QLFT deposit, overlying possible Tehama Fm.??		

Note: Station Number is keyed to the flight line and photo number